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27045	7590	03/10/2008	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			GAY, SONIA L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/505,293	Applicant(s) HULTGREN ET AL.	
	Examiner SONIA GAY	Art Unit 4183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. 3.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/21/2004, 01/05/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10505293, filed on 01/12/2005.
2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 reads “so as to avoid the need for operator interference with the established point-to-point communication.” The claims are unclear to what constitutes “operator interference”.

Claims 2-7 are dependent claims of 1 and therefore contain the reference to “operator interference” which is unclear.

Claim 5 reads “incorporate the IRMV server functionality.” The claims are unclear to what constitutes “IRMV server functionality”.

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4. Regarding claims 1, 13 and 15, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 16 is rejected under 35 U.S.C. 101, first paragraph, as the claimed invention is directed to non-statutory subject matter because the claim reads “a computer program product, comprising program code portions.” Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical “things”. They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural or functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer –readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See MPEP 2106.01(citing to In re Lowry, 32 F.3d 1579,1583-84, 32 USPQ2d 1031, 1035(Fed. Cir. 1994).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Bontempi et al. (US 7,058,042).

As to claim 8, Bontempi et al. teaches a method in a mobile radio frequency telecommunication system for retrieval of dynamic IP-address information, comprising the steps of: registering an IP-address of the first mobile communication terminal in an operator's address record (integrated name server – column 10 lines 28), the registration being acknowledged by the operator of the first terminal (column 7 lines 11 – 19; **Fig. 5** and column 9 lines 8 – 41); registering an IP address of a second mobile communication terminal in an operator's address record (integrated name server), the registration being acknowledged by the operator of the mobile communication terminal (column 7 lines 11 – 19; **Fig. 5** and column 9 lines 8 – 41); the first mobile communication terminal transmitting a request for the registered IP-address of the second mobile communication terminal, the request being relayed from one operator's address record to the other in case of different records(column 10 lines 19 – 29) ; and, the first mobile communication terminal retrieving the registered IP-address of the second mobile phone from the operators address record (column 10 lines 32- 38).

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As to claim 10, Bontempi et al. teaches a method in a mobile frequency telecommunication system for establishing a connection for voice data distribution, comprising the steps of : a first mobile communication terminal transmitting a request for establishing a communication session with a registered-IP address of second mobile phone (column 12 lines 33 – 45); the request being relayed from one operator's access server to another access server in case of different access servers (column 12 lines 46 – 50); the second mobile communication terminal transmitting an acknowledgment message to the first mobile communication terminal including acceptance message and preparation for communication session message (column 13 lines 3 – 12, 35 – 49); the request being relayed from one operator's access server to another access server in case of different access servers (column 12 lines) ; establishing a relayed communication session between the first and second mobile terminals via the access servers (column 13 lines 50 – 54).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi(US 7,058,042) in view of Higuchi (US 7,061,903).

As to claim 1, Bontempi et al. teaches an arrangement for relayed services in a mobile radio frequency telecommunication network, comprising: a plurality of mobile communication

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terminals (**Fig. 1** MS1, MS2; **Fig. 7** MS3) from which a point-to-point connection either terminates or originates (**Fig. 2; Abstract**); the mobile communication terminals operating in a mobile packet switched communication network , such as a third generation network(**Fig. 1** and column 4 lines 1 – 5, 19-20); a global and universal interconnecting network, such as the internet (server based core network - **Fig. 1** 12 and column 4 lines 65 – column 5 line 11); at least one router (**Fig. 1** GGSN) which bi-directionally provides a connecting bridge for transmission of data between the mobile packet switched communication network and the global and universal interconnecting network (column 4 lines 35 - 45); at least one Internet relay mobile Voice over IP (IRMV) server(**Fig.1** bridge and call process server (CPS): **Fig.2** U-UPF, U-CPF) is provided in the global and universal interconnecting network, in order to enable communication between mobile communication terminals (column 5 lines 14 – 44, 55 – 64; **Abstract**).

Yet, Bontempi et al. fails to explicitly state that the communication between the mobile communication terminals is without operator interference.

However, Higuchi discloses a system with a server that manages the VoIP call as claimed above in Bontempi et al. and described in Higuchi (column 4 lines 56 – column 5 lines 3, 8 – 28) that only needs to be connected to the IP network independent from operator interference for the purpose of effecting a connection between the server and a terminal (column 5 lines 29 – 36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention disclosed in Bontempi et al. with the invention disclosed in Higuchi to allow the IRMV server as disclosed in Bontempi et al. to establish connections independent of an operator.

As to claim 2, Bontempi et al. teaches the claimed invention above and further teaches wherein the servers and routers are adapted to allow voice information to be transmitted over the data distribution channels (column 5 lines 16 – 21).

As to claim 3, Bontempi et al. teaches the claimed invention above and further teaches wherein the mobile communication terminals are adapted to allow voice information to be transmitted using the data communication mode of the mobile communication terminals (column 7 lines 37 – 43, 47 – 53).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of ITU-T H.323 (02/98).

Bontempi et al. discloses the claimed invention above and further discloses that any corresponding protocol can be used for the purpose of controlling switching in the user-plane elements such as the U-CPFs (column 6 lines 14 – 20) and that RTP protocol is used for the purpose of transporting real-time streams of audio communication over the packet network (column 6 lines 20 – 27), but fails to explicitly teach that voice traffic is encoded with any ITU H.323 protocol.

However, ITU-T H.323 discloses that RTP is used in conjunction with H.323 protocol to transport real – time audio streams of audio communication over a network (pg.32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to allow the server as disclosed in Bontempi et al. to use SIP or ITU-T H.323 signaling protocol for the purpose of controlling switching and connecting VoIP calls between the mobile terminals.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of ITU-T H.323 (02/98), and further in view of Jiang (US 7,058,076).

Bontempi et al. in view of ITU-T H.323 discloses the claimed invention above, but fails to teach wherein provided access points for mobile communication terminals at least partly incorporate the IRMV server functionality.

However, Jiang teaches provided access points (base stations - **Fig. 2** 200 and column 1 lines 67 – column 2 lines 2; column 4 lines 22 – 25) which at least partly incorporate the IRMV server functionality(column 4 lines 57 – 67; column 5 lines 33 - 59) for the purpose of establishing and connecting wireless calls between wireless base stations through the IP network without using mobile switching centers (**Abstract**; column 5 lines 48 – column 6 lines 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicants invention to modify the invention as disclosed in Bontempi et al. in view of ITU-T H.323 with the invention as disclosed in Jiang to include access points into the system as disclosed in Bontempi et al. for the purpose of enabling communication between mobile terminals.

10. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of ITU-T H.323 (02/98), and further in view of Jiang (US 7,058,076), and further in view of Bremer et al.(US 6,553,002).

For claim 6, Bontempi et al. in view of ITU-T H.323 and Jiang discloses the claimed invention above and further discloses that the access points(base station-Jiang: **Fig. 2** 200) include an IP router (Jiang: **Fig. 2** 215), but fails to teach the IRMV server functionality at access points is carried out by means of a search engine and file sharing software.

However, Bremer et al. discloses a network router that has an installed search engine (**Fig. 3 52**) for the purpose of searching a routing table to determine the next router or destination to which a packet may be sent (column 5 lines 3 – 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention as disclosed in Bontempi et al. in view of ITU-T H.323 and Jiang with the invention as disclosed in Bremer et al. to include a search engine in the IP router which is a component of the access point(base station)for the purpose of determining the path IP packets between access points of mobile terminals in the packet network.

For claim 7, Bontempi et al. in view of ITU-T H.323, Jiang, and Bremer et al. disclose the claimed invention above and further discloses the mobile communication terminals are WLAN or Bluetooth enabled devices (Jiang: column 3 lines 28 – 30).

11. Claim 12 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of Umansky et al.(US 6,868,080).

Bontempi et al. discloses the claimed invention above, yet fails to teach in dependence of the transmission quality of a call, establishing a new routing path onto which an established call of unsatisfactory transmission quality can be exchanged.

However, Umansky et al. discloses a method of falling back to a PSTN call at any time during a VoIP call when the Quality of Service (QoS)(column 1 lines 21 – 26) in a VoIP network falls below some acceptable level (**Abstract**; column 1 lines 21 - 26) wherein VoIP monitoring software installed on a VoIP gateway(column 3 lines 61 - 63) detects unacceptable degradation in QoS and triggers a PSTN call(column 3 lines 3 – 8) for the purpose of maintaining the call connection (column 1 lines 59 – 64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention disclosed in Bontempi et al. with the invention disclosed in Umansky et al. to integrate VoIP monitoring software in the servers which control call set-up and connection as disclosed Bontempi et al. for the purpose of monitoring QoS levels in the VoIP network and re-routing the call to another path to maintain the call connection.

12. Claims 9, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of Maggenti et al.(US 6,928,294).

For claim 9, Bontempi et al. discloses the claimed invention, but fails to teach retrieving the dynamic IP-address of at least a third communication terminal which is to be connected to a call session between other mobile communications terminals.

However, Maggenti et al. discloses a point – to multipoint communication system (**Fig. 1** 10) wherein a controller or communication manager (**Fig. 2** 18) connects to a plurality of wireless communication devices (**Fig. 1** 112,114,116) for the purpose of providing voice of Internet packet communications (column 5 lines 6- 11) between the communication devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention in Bontempi et al. with the invention disclosed in Maggenti et al. to expand the system as disclosed in Bontempi et al. to include more than two communication devices and, subsequently, retrieve the dynamic IP-address of at least a third communication terminal for the purpose of facilitating a voice over Internet call between the mobile communication terminals.

For claim 11, Bontempi et al. discloses the claimed invention, but fails to teach retrieving the dynamic IP-address of at least a third communication terminal which is to be connected to a call session between other mobile communications terminals.

However, Maggenti et al. discloses a point – to multipoint communication system (**Fig. 1** 10) wherein a controller or communication manager (**Fig. 2** 18) connects to a plurality of wireless communication devices (**Fig. 1** 112,114,116) for the purpose of providing voice of Internet packet communications (column 5 lines 6- 11) between the communication devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention in Bontempi et al. with the invention disclosed in Maggenti et al. to expand the system as disclosed in Bontempi et al. to include more than two communication devices and, subsequently, establish a connection with at least a third communication terminal for the purpose of facilitating a voice over Internet call between the mobile communication terminals.

For claim 16, Bontempi et al. discloses the claimed invention above, but fails to teach a computer program product, comprising program code portions for the following: registering an IP address of a first mobile communication terminal in an operator's address record, the registration being acknowledged by the operator of the first mobile communication terminal; registering an IP address of a second mobile communication terminal in an operator's address record, the registration being acknowledged by the operator of the second mobile communication terminal; the first mobile communication terminal transmitting a request for the registered IP-address of the second mobile communication terminal; the request being relayed from one operator's address record to the other in case of different records; and, the first mobile

communication terminal retrieving the registered IP-address of the second mobile phone from the operator's address record.

However, Maggenti et al. discloses a computer readable medium on which is stored the following method for the purpose of establishing a multipoint communication system :
registering an IP address of a first mobile communication terminal in an operator's address record, the registration being acknowledged by the operator of the first mobile communication terminal and registering an IP address of a second mobile communication terminal in an operator's address record, the registration being acknowledged by the operator of the second mobile communication terminal(**Claim 41**); the first mobile communication terminal transmitting a request for the registered IP-address of the second mobile communication terminal; the request being relayed from one operator's address record to the other in case of different records; and, the first mobile communication terminal retrieving the registered IP-address of the second mobile phone from the operator's address record (**Claim 45**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention as disclosed in Bontempi et al. with the invention as disclosed in Maggenti et al. to store the method as disclosed in Bontempi et al. as program code on a computer readable medium for the purpose of establishing a multipoint communication system.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of Maggenti et al.(US 6,928,294), and further in view of Schuster et al.(US 6,577, 622).

For claim 13, Bontempi et al. discloses the claimed invention and further discloses registering the identification information of the user (column 9 lines 32 – 34), but fails to teach explicitly registering the IP address, the IP address being associated with certain identifiers, such as name, telephone number, or any other unique identity number, such as a fixed allocated IP-address.

However, discloses a Schuster et al. discloses that the registered identification information can include an IP address and an associated SIP identifier (column 9 lines 42- 44) for the purpose of notifying a proxy server of the location of a communication device for a time period (column 9 lines 44 – 47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention disclosed in Bontempi et al. with the invention that is disclosed in Schuster et al. to specify that the information that is registered in Bontempi et al. includes an IP address and associated identifying information for the purpose of locating and communicating with a communication terminal in a packet network.

14. Claims 14 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bontempi et al.(US 7,058,042) in view of Maggenti et al.(US 6,928,294), and further in view of Schuster et al.(US 6,577, 622), and further in view of Viola et al. (US 2003/0058813).

For claim 14, Bontempi et al. in view of Maggenti et al. and Schuster et al. discloses the claimed invention above, but fails to teach allocating IP- addresses by means of an Internet service provider (ISP), preferably mobile ISP, or other entity managing an access point.

However, Viola et al. discloses that a mobile terminal can be assigned a dynamic Internet Protocol address from addresses owned by a mobile network gateway(MGN) or gateway GPRS support node (GGSN) for the purpose of accessing the Internet ([0002]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention as disclosed in Bontempi et al, in view of Maggenti et al. and Shuster et al. with the invention disclosed in Viola et al. to assign or allocate an IP address by means of the manager of the MGN or the GGSN for the purpose of allowing the mobile terminal to access the Internet.

For claim 15, Bontempi et al. in view of Maggenti et al., Schuster et al., and Viola et al. discloses the claimed invention above and further discloses searching, by means of a search engine and file sharing software, for a dynamic IP address by means thereto associated identifiers, such as name, telephone number, or any other unique identity number, such as a fixed allocated IP address (Bontempi et al.: column 10 lines 27 – 36).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 6,078,583.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONIA GAY whose telephone number is (571)270-1951. The examiner can normally be reached on Monday to Thursday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sonia Gay/
Examiner, Art Unit 4183

February 25, 2008

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183